

THE DER WEEKLY

www.eren.doe.gov/der

Vol. 2 No. 21

May 25, 2001

Industry News

Superconductive Cable to be Installed in Detroit

Detroit Edison will soon begin installing three lines of 400-yard, three-inch thick **superconductive cable** in Detroit, Michigan. The cables will carry two to four times more electricity than conventional copper wire and weigh only 250 pounds (combined) compared to the current copper wires that have a combined weight of 18,000 pounds. Under the \$5.3 million project, led by the U.S. Department of Energy in partnership with public and private entities, Detroit Edison will install the lines over the next three months, and test and monitor the system for one year. [The Detroit News](#), May 24



An employee of Pirelli Cables installs a role of cable at the Detroit Edison Frisbie Substation test site. Photo: Daniel Mears, *The Detroit News*

Eight Utilities Propose Emissions Caps

Eight U.S. utilities have formed a coalition and plan to propose legislation for a **voluntary, market-based system to limit carbon dioxide and other emissions**. In their proposal, the utilities (Conectiv, Consolidated Edison, Exelon Corp, Keyspan Corp, Northeast Utilities, PG&E National Energy Group, PSEG, and Sempra Energy) urge a national tonnage cap for carbon, sulfur dioxide, nitrogen oxide, and mercury emissions and a gradual reduction in carbon dioxide pollution. The proposal is expected to be complete next month. [Reuters](#), May 23

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Policy News

Federal Fuel Cell Legislation Announced in CT

Congressman John Larson (D-CT) and Senator Christopher Dodd (D-CT) have introduced [legislation](#) (HR 1830 and S 883) that would **invest \$1 billion in fuel cell technology** over the next five years to develop, demonstrate and promote fuel cells. The Energy Independence Act of 2001 directs the U.S. Department of Energy to develop a strategic plan to ensure the nation is energy self-sufficient by 2011, would provide funding for federally run pilot and demonstration programs, and would make grant programs available to state and local governments. During a press conference at International Fuel Cells in South Windsor, Connecticut, Congressman Larson stated that "fuel cells have emerged as the answer to the energy needs of the United States.... Investment is needed now for their continued advancement in mainstream America." [Congressman Larson Press Release](#), May 18; www.senate.gov/~dodd/fr-photo1.html



CA Bill on Power Plant Siting Becomes Law

On May 22, the Governor of California signed SB 28x, which will encourage expedited siting of new electric generation in the state. The legislation includes expedited permitting timelines, air emission offsets, and waivers of standby charges for small distributed generation facilities. In addition, it encourages the development and use of **distributed energy resources** consistent with state and Federal air quality statutes. The Governor stated during a press conference that the legislation "will **remove barriers** for distributed generation, some of which we expect to have online this summer." [Office of the Governor Press Release and Transcript](#), May 22

CHP Interconnection Bills Introduced in U.S. House and Senate

With bipartisan support in the U.S. House of Representatives and Senate, two [bills](#) addressing interconnection standards for combined heat and power (CHP) facilities were introduced May 22. Congressman Jack Quinn (R-NY) introduced HR 1945, and Senator James Jeffords (I-VT) introduced S 933, which would establish uniform, nationwide **interconnection standards** for **CHP** plants and other clean, efficient **distributed generation** technologies. The bill would

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The nation's first retail gas station to sell vegetable fuel for diesel vehicles opened May 23 in San Francisco.*

require the Federal Energy Regulatory Commission to establish the standards one year from enactment, addressing issues such as backfeed to the grid and safety measures. The legislation does not require states to allow retail competition or open access to distribution systems. [PR Newswire](#), May 22

Oklahoma Deregulation Bill Stalled

According to The *Daily Oklahoman*, legislation that would delay electric deregulation in [Oklahoma](#) has been stalled in the state Senate due to **disagreements over tax incentives for wind turbines** and other provisions. The bill, SB 440, includes a tax credit for electricity generated by zero-emission facilities and would delay the implementation of electric deregulation from July 1, 2002, until after a task force makes recommendations by the end of 2002. [The Daily Oklahoman](#), May 23

Montana Governor Signs Energy Bill

Montana Governor Judy Martz recently signed into law state energy legislation that creates a revolving "Clean Air Investment Loan Fund." Using fines and penalties collected from air quality providers, the state will loan money to individuals and small businesses to build renewable, alternative energy systems to **generate power for private consumption or for net metering**. The act also provides for tax exemptions, credits, and extensions of eligibility for the purchase, installation, maintenance, and management of renewable energy generation. *Summary provided by Van Jamison, DRO*

BPA Seeks Short-term Policy for Use of Small Electric Generation

The Bonneville Power Administration (BPA) plans to implement a short-term policy in June that would encourage the immediate addition of **small electric generation** to help decrease reliance on BPA for power this summer. This would assist the Northwest in meeting its needs during the current energy shortage. The policy would complement the current load reduction strategy BPA has with its customers, allowing those who reduce their load with BPA by 10 percent to use temporary generators to supply a small portion of their energy needs. The temporary policy would be in effect from June 1 to September 30, 2001. [BPA Press Release](#), May 17

Solar Plan Proposed in San Francisco

Tom Ammiano, San Francisco Board of Supervisors, has proposed a plan to generate 50 MW of electricity through a public-private partnership, for the installation of **solar panels on commercial and residential buildings**. The city would assist with financing through the issuance of revenue bonds, which would be repaid with money made from the sale of electricity and lease payments from participating building owners. In addition, the city would use state and federal subsidies to keep costs down. The power would be used for onsite electricity needs, and excess power would be fed into the local utility grid. Supervisor Ammiano hopes to add the Charter amendment to November ballots. [San Francisco Chronicle](#), May 23

NY and CA Look to Diesel Generators for Emergency Backup Power

The New York State Department of Environmental Conservation adopted a new rule to expand the use of emergency diesel generators **to avoid power blackouts** this summer. The rule would permit owners to operate diesel generators when the state's Independent Systems Operator declares a power emergency. The diesel operators would disengage from the power grid and generate their own power, relieving stress from the grid and making more power available in order to avoid a blackout. The rule will serve as a temporary solution until additional power generation capacity can be brought online, most likely in the summer of 2003.

In California, the Governor's administration has proposed paying thousands of diesel-powered generators to put their **generators into service when supplies are low** in order to alleviate the burden on the grid. The generators would be turned on and disconnected from the grid when power supplies are at Stage 3. According to the *LA Times*, California has about 17,200 backup generators located in hospitals, office buildings, sewage treatment plants, and universities, which have the capacity to generate approximately 550 MW.

[Diesel Technology Forum News Release](#), May 23; [Los Angeles Times](#), May 24; [The Sacramento Bee](#), May 24



DOE News

ORNL EE/RE Program Announcement

On April 2, 2001, Dr. Marilyn Brown became Director of Oak Ridge National Laboratory's (ORNL) Energy Efficiency and Renewable Energy (EE/RE) Program. This position was vacated by Tony Schaffhauser who has taken the position as Center Director for Distributed Energy Resources at the National Renewable Energy Laboratory. The EE/RE Program at ORNL was established in 1978 and has grown to be one of the major programs within the laboratory.

Also on April 2, Dr. Michael Karnitz was appointed Deputy Director of ORNL's EE/RE Program, taking the position previously held by Dr. Brown. Mike will also continue as Manager of ORNL's DER Program. On that same date, Dave Stinton was named the DER Materials Manager in ORNL's Metals and Ceramics Division. Dave is responsible for microturbine materials, ceramic composites, and advanced alloys.

Edgar Lara-Curzio Named ASTM Fellow

Edgar Lara-Curzio, Oak Ridge National Laboratory, received the 2001 Award of Merit from the American Society for Testing and Materials and received the honorary title of ASTM Fellow. His award cited "his tireless commitment to the technical excellence and introduction of new test methods for ceramics and ceramic matrix composites." The award is the highest one granted by ASTM to an individual member for distinguished service and outstanding participation in ASTM

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committee activities. Edgar is one of the youngest recipients of the award.

IEA Annex on Energy Storage Meets in Ottawa

Representatives of eight countries participating in the International Energy Agency (IEA) Annex entitled “Energy Conservation Through Energy Storage” met in Ottawa, Canada, May 16-18. Dr. Imre Gyuk represented the Department of Energy at the meetings.

Progress reports were presented on all the constituent storage annexes, including the widespread use of thermal energy storage throughout Northern Europe. Hot and cold storage in boreholes or aquifers is used to enhance the efficiency of combined heating and power by obviating the need to use all of the available energy at any given time. Storage is used for daily cycling as well as seasonally. Electricity and heat production can thus be optimized regardless of load variation. U.S. participation in a sub-annex on “cooling in all climates with thermal energy storage” was also discussed, at which DOE would obtain data from current, world wide applications of a broad portfolio of technologies.

Dr. Gyuk also gave a talk on Opportunities in Electric Energy Storage in the context of a workshop on “The Role of Energy Storage in Future Energy Systems” organized by the IEA group. The presentation outlined the importance of energy storage to provide reliability for the digital economy and contribute to supply/demand elasticity through peak shifting.

MIT Forum on Enabling DG

A forum on enabling distributed generation, sponsored by the MIT Energy Laboratory and Citizens Energy Corporation, was held on May 18, 2001, at the MIT Energy Laboratory in Boston, Massachusetts. Professor Jeff Tester (Energy Laboratory Director) and Joseph P. Kennedy II, (CEO and President of Citizens Energy Corporation) served as forum facilitators. The purpose of the meeting was to identify and discuss technical, business, financial, and regulatory opportunities enabling the deployment of distributed generation and other distributed resources under retail electric rates. The forum included speakers who addressed technological and interconnection issues and opportunities, as well as opportunities and hurdles for distributed generation in the business and regulatory arenas. Speakers included T. Widmer (Teacogen—distributed generation), D. Eisenhaure (SatCon—premium power), Dick DeBlasio (NREL—interconnection issues and costs), J. Bzura (National Grid-USA—distribution system impacts), A. Ilic and S. Connors (MIT—evolving market niches), and E. Petrie (ABB—virtual utility). Dr. E. Moniz was also a speaker and provided his assessment of distributed power. Joseph Kennedy facilitated a luncheon discussion with all participants regarding present and future distributed power utilization, interconnection, regulatory barriers, and investment.

Power Crunch

USCHPA Sponsors Senate Staff Briefing on Combined Heat & Power

On May 24, the U.S. Combined Heat and Power Association (USCHPA) sponsored a briefing on Capitol Hill for Senate staff interested in learning more about combined heat and power (CHP). The speakers presenting information on various aspects of CHP included John Jimison, USCHPA; Neil Elliott, American Council for an Energy-Efficient Economy; Tony Occhionero, American Gas Cooling Center; Richard Brent, Solar Turbines; Rob Thorton, International District Energy Association; and Craig Bennett, Trigen.

The presentations provided background on CHP the technologies involved, barriers, and goals. Presenters explained the benefits of CHP including efficiencies, available technologies, reliability, cost savings, feasibility, and environmental advantages.

Case studies were cited as examples of how CHP is currently being used, with the mention of the CHP facilities at McCormik Place Chicago Convention Center, Opryland theme park in Tennessee, and the University of Maryland at College Park office building.

The final portion of the briefing outlined the barriers CHP faces and provided policy solutions for the staff to consider. Of the barriers listed (lack of uniform interconnection standards, inequities of tax treatment, failed environmental laws, punitive rates for utility services, and unrealized technological promise) interconnection issues and tax treatment were the major focus. Craig Bennett cited several recently introduced bills that address these obstacles, and called on members of Congress to use their positions of leadership to demand that laws are passed to harness unrealized technological promise.

After the presentations, several staffers engaged the discussion panel with questions about CHP’s role in the new National Energy Policy.

The presentations will be available soon on the USCHPA Web site at www.nemw.org/uschpa.

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By the Numbers

If a typical building uses 100 units of energy, the following would be true if energy efficiency measures were implemented.

85	Percent energy used with lighting and windows efficiencies
81.6	Percent energy used with mechanical equipment efficiencies
57.1	Percent energy used with a buildings combined heat and power initiative

Source: American Gas Cooling Center



Regional Office News

PRO Presents Wind Energy to High School Students

On May 22, the Philadelphia Regional Office (PRO) staff made a presentation on wind energy to approximately fifty 11th and 12th grade environmental science students at the Easton Area High School in Easton, PA. The students asked questions about wind turbines and recognized the importance of wind energy as an alternative energy source that is clean, renewable, and sustainable. Staff were invited to provide presentations to the students next year.



Environmental News

Carnegie Mellon University to Make Large Wind Energy Purchase

Next year Carnegie Mellon University will purchase five percent of its total electricity from new wind power generated at the Mill Run wind project in Pennsylvania. Under an agreement with Community Energy, Inc., and Environmental Defense, the university will buy 4,778 MWh. This purchase will eliminate the equivalent of 13 tons of NO_x per year, 35 tons of SO₂, 5,100 tons of CO₂, and 0.18 pounds of mercury. [Green Power Network](#), [Carnegie Mellon Press Release](#), May 21



CALENDAR OF EVENTS

Date	Event	Location	Other Information
MAY 2001			
30-31	Fuel Cells Codes & Standards Summit V	College Park, MD	ronald.fiskum@ee.doe.gov
31	Idaho Geothermal Energy Stakeholders Workshop	Boise, ID	www.eren.doe.gov/geopoweringthewest
JUNE 2001			
3-6	FEMP Energy 2001 Conference	Kansas City, MO	www.energy2001.ee.doe.gov
3-7	WindPower 2001 Conference	Washington, DC	www.awea.org ; laura_keelan@awea.org
3-8	7th International Symposium on Solid Oxide Fuel Cells	Tsukuba, Ibaraki, Japan	sofc7@nimc.go.jp (National Institute of Materials and Chemical Research)
4-6	Advanced Technology Program National Institute of Standards and Technology — National Meeting	Baltimore, MD	www.atp.nist.gov/nationalmeeting
4-7	ASME Turbo Expo-Land, Sea, Air	New Orleans, LA	www.asme.org/igtj ; Debbie Haught is organizing a microturbine panel.
4-7	International Joint Power Generation Conference & Expo	New Orleans, LA	www.asme.org/conf/ijpgc01 ; Debbie Haught is presenting.
11	Fuel Cell Transportation Technology Summit	San Jose, CA	Sandra Gadzia; gadzia@sae.org
11-13	International Symp. on DG: Power System & Market Aspects	Stockholm, Sweden	www.ekc.kth.se/ees/workshop/DG.htm
13-15	Natural Gas and Power Generation Strategies: Solving the Natural Gas and Energy Crisis	Tucson, AZ	www.intertechusa.com
17-20	11th Canadian Hydrogen Conf.: Building the Hydrogen Economy	Victoria, BC, Canada	www.iesvic.uvic.ca/cha (Canadian Hydrogen Association)
18-20	APPA National Conference	Washington, DC	www.appanet.org
21-22	Fundamentals of Energy Management	Memphis, TN	Sponsored by FEMP and Association of Energy Engineers www.aeecenter.org/seminars

According to an NREL spokesperson, the Federal government estimates sales of biodiesel will reach 20 million gallons in 2001.*



CALENDAR OF EVENTS

JUNE 2001

26	Congressional Fuel Cell Exposition	Washington, DC	Cannon Caucus Room, 345 Cannon House Office Building 11:00 am to 3:00 pm. For more info: gdolan@usfcc.com
27	USCHPA Annual Meeting and Policy Day	Washington, DC	www.nemw.org/uschpa/PolicyDay0601.htm
27-28	TN Wind Workshop	Knoxville, TN	W. Dwight Bailey 404-562-0564

JULY 2001

9-13	4th International Symposium on New Materials for Electrochemical Syst.	Montreal, Quebec	www.newmaterials.polymtl.ca/eng/congres
10-12	Gas Storage Workshop	Kingston, Ontario	David Quinn; quinn-d@rmc.ca
16-19	2001 National Workshop on State Building Energy Codes	Burlington, VT	www.eren.doe.gov/buildings/codes_standards/buildings/2001natl_workshop.html
24-27	ACEEE Summer Study	Tarrytown, NY	www.aceee.org ; Rebecca Lunetta; 302-292-3966
30 - Aug. 1	Green Power Conference	Portland, OR	Tina Kaarsberg, tina.kaarsberg@ee.doe.gov; megan_maguire@nrel.gov

AUGUST 2001

21-24	International Energy Program Evaluation Conference	Salt Lake City, UT	608-835-6880; marymcc@tds.net
29-30	Integrated Energy Efficiency Conference and Facilities Management and Maintenance Expo	Cleveland, OH	www.aeecenter.org
29-Sep. 3	IEEC Integrated Energy Efficiency Congress	Cleveland, OH	Sponsored in part by FEMP; www.aeecenter.org

SEPTEMBER 2001

11-13	7th Grove Fuel Cell Symposium	London, UK	www.grovetfuelcell.com
17-21	Fifth Biomass Conference of the Americas	Orlando, FL	www.fsec.ucf.edu/bioam ; dee_scheaffer@nrel.gov
24-26	Powering the Future—New Strategies and Solutions for Deploying Distributed Power in the Marketplace	Chicago, IL	www.intertechusa.com
30 – Oct. 5	UPEX'01: The Photovoltaic Experience Conference & Exhibition	Sacramento, CA	Jjudd@ttcorp.com; Hosted by Sacramento Municipal Utility District; includes distributed energy technologies workshop

OCTOBER 2001

14-17	National Center for Photovoltaics Program Review	Lakewood, CO	barbara_ferris@nrel.gov, 303-275-3781
24-26	World Energy Engineering Congress	Atlanta, GA	www.agcc.org (includes CHP Expo www.aeecenter.org)
24-27	Excellence in Building 2001	Orlando, FL	www.eeba.org/conference